



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

to the primitive type, and as family portraits show a uniformity that could not exist if the race obtained but its mathematical proportion of ancestral peculiarities. arguments based on the mathematics of the case avail little in the discussion.

EDWARD H. WILLIAMS, JUN.

Bethlehem, Penn., April 9.

BOOK-REVIEWS.

The Great Earthquake of Japan, 1891. By PROFESSOR JOHN MILNE, F.R.S., and PROFESSOR W. K. BURTON, C.E. With plates, by K. Ogawa. Yokohama, 1892.

In these modern days when photography has assumed such an important part, not only in the artistic side of life, but in the work of scientific observation as well, it was inevitable that after any great natural occurrence like the Japanese earthquake of October, 1891, the camera should be employed to assist in preserving a correct record of its effects. Some of the pictures so taken have been reproduced in the European and American illustrated papers and have aided much in conveying to western readers an idea of the great destruction caused by this calamity; but none which the writer has seen can be compared to the beautiful series of pictures contained in the volume named above.

It is an oblong quarto, 29 cm. by 41 cm. in size, containing twenty-nine full-page heliotype copies of photographs and one map. All but three of the photographs were made by the authors for the Imperial University of Japan, and are copyrighted in its

name. They are printed on a fine Japanese paper, which is itself a product of the very district shaken by the earthquake. The book is published by Lane Crawford & Co., Yokohama, but the press-work was done in Tokyo. It is prepared as a popular souvenir of the earthquake, and makes no attempt at any scientific discussion of the phenomena, the ten pages of introductory letter-press on earthquakes in general and the short explanation attached to each plate being mainly descriptive.

In nearly one-third of the plates the objects illustrated are the temporary shelters to which the inhabitants were driven. But in those which illustrate the ruined condition of the buildings and bridges, the excellent plates give such perfect details that many points of scientific interest can be seen and studied. This is especially true of the series of five views of the Nagara iron railroad bridge. This bridge consisted of five two hundred-foot spans of trussed girders, of which one span fell entire into the river's bed, carrying down with it one end of each of the adjoining spans, yet the pictures make plain that the girders themselves were so well put together that they are but little injured by their fall. Another view shows the approach to this bridge, where the embankment has entirely sunk away, leaving the rails and ties eighteen feet up in the air. At another place where the rails have been distorted into a serpentine form, the photograph shows three distinct horizontal flexures in which the rails are at least two feet out of their alignment. Other views again illustrate the crevasses, often several feet wide, by which the ground was riven, especially

CALENDAR OF SOCIETIES.

Philosophical Society, Washington.

April 9.—W. J. McGee, Illustrations of Isostatic Pressure; Bailey Willis, Illustrations of Appalachian Structure (with lantern views); Robert T. Hill, The Geologic Evolution of the Topography of Texas (with lantern views).

Geographical Club, Philadelphia.

April 6.—Henry Pettit, The Orient and the Occident.

Contemporary Club, Philadelphia.

April 12.—Frank Hamilton Cushing, Zuni Folk-Lore.

Oriental Club, Philadelphia.

April 14.—Rev. Dr. Marcus Tastion, Psalms 24th, 73d, and 90th; Talcott Williams, Note on Arab Geography.

Numismatic and Antiquarian Society, Philadelphia.

April 7.—Inman Horner, Lieutenant Gorgers's Notes on Alaskan Indians. Exhibition Alaskan Objects.

Publications Received at Editor's Office.

- AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS. Transactions, Vol. VII. New York, The Institute. 8°. 647 p.
- DAVIES, CHARLES. New Elementary Algebra. Edited by J. H. Van Amringe. New York, American Book Co. 12°. 294 p. 90 cts.
- FERRER, BARR. Christian Thought in Architecture. New York, from the Proceedings of the American Society of Church History. 8°, paper. 32 p.
- KELLER, HELEN. Souvenir of the First Summer Meeting of the American Association to Promote the Teaching of Speech to the Deaf. 2nd ed. Washington, Volta Bureau. 4°, paper.
- NATURAL SCIENCE. Vol. I., No. 1., March, 1892. London and New York, Macmillan & Co. Monthly. 8°. 80 p.
- NEWALL, JANE H. Outlines of Lessons in Botany. Part II.: Flower and Fruit. Boston, Ginn & Co. 12°. 396 p. Ill.
- PARSONS, JAMES RUSSELL, JR. French Schools through American Eyes. Syracuse, C. W. Bardeen. 8°. 136 p. \$1.
- PHILLIPS, MORRIS. Abroad and at Home. New York, Brentanos. 12°. 251 p.
- SMITHSONIAN INSTITUTION. Annual Report of the Board of Regents to July, 1890. 8°. 842 p. Washington, Government.

Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 874 Broadway, New York.]

For sale or exchange, Das Ausland, 10 vols., 1832 to 1891, including 6 vols. bound, 4 in numbers. Wheeler Survey, vol. 1. Geog. Report; also vol. 6. Botany; Production of gold and silver in the United States, 1880, '1, '2, '3, '5; Selfridge Isthmus of Darien. Will sell at very low prices. J. F. James, 1443 Corcoran St., Washington, D. C.

For exchange.—A fine thirteen-keyed flute in leather covered case, for a photograph camera suitable for making lantern slides. Flute cost \$27, and is nearly new. U. O. COX, Mankato, Minn.

To exchange; Experiment Station bulletins and reports for bulletins and reports not in my file. I will send list of what I have for exchange. P. H. ROLFS, Lake City, Florida.

Finished specimens of all colors of Vermont marble for fine fossils or crystals. Will be given only for valuable specimens because of the cost of polishing. GEO. W. PERRY, State Geologist, Rutland, Vt.

For exchange.—Three copies of "American State Papers Bearing on Sunday Legislation," 1891, \$2.50, new and unused, for "The Sabbath," by Harmon Kingsbury, 1840; "The Sabbath," by A. A. Phelps, 1842; "History of the Institution of the Sabbath Day, Its Uses and Abuses," by W. L. Fisher, 1849; "Humorous Phases of the Law," by Irving Browne; or other works amounting to value of books exchanged, on the question of governmental legislation in reference to religion, personal liberty, etc. If preferred, I will sell "American State Papers," and buy other books on the subject. WILLIAM ADDISON BLAKELY, Chicago, Ill.

Wanted, in exchange for the following works, any standard works on Surgery and on Diseases of Children: Wilson's "American Ornithology," 3 vols.; Coues' "Birds of the Northwest" and "Birds of the Colorado Valley," 2 vols.; Minot's "Land and Game Birds of New England," Samuels' "Our Northern and Eastern Birds," all the Reports on the Birds of the Pacific R. R. Survey, bound in 2 vols., Morocco; and a complete set of the Reports of the Arkansas Geological Survey. Please give editions and dates in corresponding. R. ELLSWORTH CALL, High School, Des Moines, Iowa.

To exchange Wright's "Ice Age in North America" and Le Conte's "Elements of Geology" (Copyright 1882) for "Darwinism," by A. R. Wallace, "Origin of Species," by Darwin, "Descent of Man," by Darwin, "Man's Place in Nature," Huxley, "Mental Evolution in Animals," by Romanes, "Pre-Adamites," by Winchell. No books wanted except latest editions, and books in good condition. C. S. Brown, Jr., Vanderbilt University, Nashville, Tenn.

For Sale or Exchange for books a complete private chemical laboratory outfit. Includes large Becker balance (200g. to 1-10mg.), platinum dishes and crucibles, agate motors, glass-blowing apparatus, etc. For sale in part or whole. Also complete file of *Silliman's Journal*, 1862-1885 (62-71 bound); Smithsonian Reports, 1854-1883; U. S. Coast Survey, 1854-1860. Full particulars to enquirers. F. GARDINER, JR., Pomfret, Conn.

Wants.

Any person seeking a position for which he is qualified by his scientific attainments, or any person seeking some one to fill a position of this character, be it that of a teacher of science, chemist, draughtsman, or what not, can have the "Want" inserted under this head at 10 cents a count line. Nothing inserted at less than 50 cents a time prepaid by stamps, if most convenient.

TRANSLATOR wanted to read German architectural works at sight (no writing). One familiar with technical terms desired. Address "A.," Box 149, New York Post Office.

WANTED.—A position in a manufacturing establishment by a manufacturing Chemist of inventive ability. Address M. W. B., care of Science, 874 Broadway, N. Y.

WANTED.—Books on Anatomy and Hypnotism. Will pay cash or give similar books in exchange. Also want medical battery and photo outfit. DR. ANDERSON, 182 State street, Chicago, Ill.

WANTED.—A college graduate with some normal training, to teach the sciences, at \$1,800 per year, in a Southern college. A Baptist or a Methodist preferred. Must also be a first-class Latin scholar. A. H. BEALS, Box K, Milledgeville, Ga.

A PROFESSORSHIP in Chemistry is wanted by one who has had five years' experience in that capacity. Would prefer to give instruction by lectures and experiments rather than by text-book methods. Would like a position in a college or university where there is a good student's laboratory. Special points of strength claimed are: (1) Thorough control of a class and good order during lectures and recitations. (2) Accuracy in experimenting with chemicals and skill in the manipulation of chemical apparatus. The permission of several distinguished educators has been given to refer to them if required. Would not care to accept a position paying less than \$1,500. Address B. E., care of Science, Advertising Dept., 47 Lafayette Place, New York.

ADDRESS WANTED.—Will some one please send the address of the Secretary of the American Philological Society. Also that of Herbert Spencer. "ADDISON," Room 84, 164 Madison St., Chicago, Ill.

ADDRESSES of Old Book Dealers wanted.—Wishing to obtain a number of old books out of print, I very much desire the addresses or catalogues of rare second-hand book dealers. If there is a directory or list of such dealers I should like to obtain possession of one. W. A. BLAKELY, Chicago, Ill.

WANTED.—(1) A white man versed in wood and iron working, able to work from specifications and plans, suited for an instructor of boys; his business to have charge of shops of school, outline and direct the work for foremen and students; salary to be \$1,000 per annum (nine months). (2) A man (black preferred) to teach the colored, iron working and forging, subordinate to the preceding; salary, \$720. (3) A man (white) competent to take classes in engineering (assistant's position), but with the ability to perform any of the work required in any of the ordinary engineering courses of our universities; salary from \$1,000 to \$1,500. A. H. BEALS, Milledgeville, Ga.

along the embankments of the rivers, and others the ruins of the cotton spinning mill at Nagoya.

Altogether this album of plates is a most valuable contribution to the history of the earthquake, and may well merit a place on the shelves of anyone interested in Seismology. The first edition of 1,000 copies has all been sold at 6 yen (about \$4.50), which is a very low price for such a volume; and a second edition is in preparation, perhaps ready for issue by this time. This will contain one or two additional plates, and will be sold at a somewhat higher price.

Princeton, April 9.

AMONG THE PUBLISHERS.

EDGERTON CASTLE'S important work on "Schools and Masters of Fence," which has heretofore only been obtainable in an expensive 4to form, will shortly be issued by Macmillan & Co. as a volume in the Bohn Library. The reprint will contain all the

original illustrations and some additions in matter over the original work.

—G. P. Putnam's Sons add to their previous announcements the following: "Materialism and the Modern Physiology of the Nervous system," by William H. Thomson, M.D., professor of Materia Medica and Diseases of the Nervous System in the Medical College of New York. This volume, which will be illustrated, comprises the material (revised, with some additions) of two lectures recently delivered by the author before Columbia College, and at the McGill University, Montreal. Professor Freeman, whose sudden death a fortnight back has caused to be left unfinished a good deal of important literary work, had just before his death completed the proof-reading of the last pages of "The Story of Sicily," which he had prepared for the *Story of the Nations Series*. The preface to the volume, which he had not completed, will now probably be written by his son-in-law, Professor Arthur Evans.

PROPRIETARY.

Exhaustion

Horsford's Acid Phosphate.

A wonderful remedy, of the highest value in mental and nervous exhaustion.

Overworked men and women, the nervous, weak and debilitated, will find in the Acid Phosphate a most agreeable, grateful and harmless stimulant, giving renewed strength and vigor to the entire system.

Dr. Edwin F. Vose, Portland, Me., says: "I have used it in my own case when suffering from nervous exhaustion, with gratifying results. I have prescribed it for many of the various forms of nervous debility, and it has never failed to do good."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

CAUTION.—Be sure the word "Horsford's" is on the label. All others are spurious. Never sold in bulk.

A TEMPORARY BINDER

for *Science* is now ready, and will be mailed postpaid on receipt of 75 cents.



This binder is strong, durable and elegant, has gilt side-title, and allows the opening of the pages perfectly flat. Any number can be taken out or replaced without disturbing the others, and the papers are not mutilated for subsequent permanent binding. Filed in this binder, *Science* is always convenient for reference.

N. D. C. HODGES, Publisher,
874 Broadway, New York.

PUBLICATIONS.

1,200 PAGES FOR \$1.00

IS what the Publishers of THE AMERICAN QUEEN are giving their subscribers.

This interesting Magazine, which is published monthly in Bridgeport, Conn., gives one hundred pages of solid literature each month including illustrated articles on travel, historical and biographical reviews of prominent men and places, startling stories of real and adventurous life, etc. Special departments devoted to the household, fashion, book reviews, literature, scientific discoveries, facts and fancies, people of note, correspondence, etc. Its fashion department is illustrated with cuts of the latest fashion and is conducted by one of the most eminent authorities in America. American Queen Publishing Co., Bridgeport, Conn. Subscription \$1.00 per year, 50 cents, 6 months, or send postal note for 25 cents or 30 cents in stamps for 3 months' trial.

PATENTS

For INVENTORS. 40-page BOOK FREE. Address W. T. Fitzgerald, Attorney at Law, Washington, D.C.

STATIONERY, ENGRAVING, ETC.

ESTERBROOK'S STEEL PENS.

OF SUPERIOR AND STANDARD QUALITY.

Leading Nos.: 048, 14, 130, 135, 239, 333

For Sale by all Stationers.

THE ESTERBROOK STEEL PEN CO.,
Works: Camden, N. J. 26 John St., New York.



METAL, MARBLE, AND MOSAIC WORK.

MEMORIAL TABLETS

of any description erected in Schools, Colleges, Libraries, Chapels, Churches and Public Buildings. Send for illustrated hand-book.

J. & R. LAMB, 59 Carmine St., N.Y.



ESTABLISHED 1858.

H. H. UPHAM & CO.,

MEMORIAL TABLETS

In Brass and Bronze,

54 So. Fifth Ave., near Bleecker St., N. Y.

MINERALOGY.

Course of Mineralogy for Young People.

Conducted by correspondence; minerals and books furnished.

Collection and book, "First Grade," one dollar; postage, 25 cents. Send for circulars to

GUSTAVE GUTTENBERG,
Central High School, Pittsburgh, Pa.

GEM OPALS. Cut ready for setting. Having purchased a large lot at the Mexican locality, we are offering them at about one-fifth jewellers' prices; 50c., \$1., \$1.50, \$2., \$3. This is a rare opportunity to secure a fine gem very cheap. 100 pp. Mineral Catalogue 15c., in cloth 25c., Supplement 2c. GEO. L. ENGLISH & Co., Mineralogists, 733 and 735 Broadway, New York City.

OF WHAT USE IS THAT PLANT?

You can find the answer in

SMITH'S "DICTIONARY OF ECONOMIC PLANTS."

Sent postpaid on receipt of \$2.80. Publisher's price, \$3.50.

SCIENCE BOOK AGENCY,
874 Broadway, New York.

AUTHORS AND PUBLISHERS.

Material arranged and compiled for all kinds of works, excepting fiction. Statistics a specialty. Indexing and cataloguing. Address G. E. BIVER, 836 N. 16th Street, Philadelphia.

DRY GOODS, ETC.

Arnold, Constable & Co. FLANNELS.

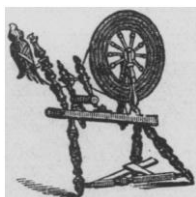
are now exhibiting

French Printed Flannels, Finnette,
and Scotch Flannels

in new effects, well adapted for SEA-
SIDE and MOUNTAIN WEAR; also, in
great variety of SOLID COLORS in

French and American Serge Twill
Flannels.

Broadway & 19th St.
NEW YORK.

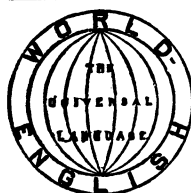


The Fifth Avenue Linen Store.

Our stock of Housekeeping Linen Goods is the most complete in America. We deal with manufacturers only, and keep nothing but pure linen. Our patrons can always rely upon getting the best makes of Table Linen, Napkins, Towels, Handkerchiefs, etc., at the very lowest price. A fine *all linen* initial Handkerchief, in both ladies' and men's sizes, at \$3.00 dozen. Extra large hemstitched Huck Towels, \$3.00 dozen. Hand hemstitched linen Sheets, \$5.00 a pair. Pillow Cases to match at \$1.00 a pair. We always have the latest novelties in linen table decorations. A visit to our store does not incur any obligation to buy.

WM. S. KINSEY & CO.,
Near 36th St. 386 Fifth Avenue.

The Crawford Shoe is made the Standard of excellence in nearly every retail shoe-store in the country.
Ask for a pair of Crawfords, you will be told they have a shoe "just as good," or "equal to it," and occasionally a salesman will claim to have one "better than The Crawford." As dealers cannot buy this shoe, they cannot be expected to speak in its praise intentionally.
The Crawford is sold by the maker to the wearer only, through Crawford shoe-stores.



WORLD-ENGLISH.
25 Cents.

**HANDBOOK OF
WORLD-ENGLISH.**
25 Cents.

Ex-President Andrew D. White, of Cornell University, says: "I believe that the highest interests of Christian civilization and of humanity would be served by its adoption."

"So set down, our tongue is the best for the world to unite upon."—*Brooklyn Eagle*.

"The idea of Mr. Bell has much to recommend it, and the presentation is charmingly clear."—*American*, Phila.

"The result is a language which cannot fail to meet with acceptance."—*Boston Traveller*.

"World-English deserves the careful consideration of all serious scholars."—*Modern Language Notes*.

Sent, postpaid, on receipt of price.

N. D. C. HODGES, 874 Broadway, New York.

FINANCIAL.

THE American Bell Telephone COMPANY.

95 MILK ST., BOSTON, MASS.

This Company owns the Letters Patent granted to Alexander Graham Bell, March 7th, 1876, No. 174,465, and January 30, 1877, No. 186,787.

The Transmission of Speech by all known forms of ELECTRIC SPEAKING TELEPHONES infringes the right secured to this Company by the above patents, and renders each individual user of telephones, not furnished by it or its licensees, responsible for such unlawful use, and all the consequences thereof and liable to suit therefor.

TACOMA SOUTH BEND INVESTMENTS PUGET CITY

I GUARANTEE 12 per cent per annum in any of the above cities. I have made from 40 to 50 per cent. per annum for non-residents. I also make first mortgage, improved real estate loans on unquestionable securities from 8 to 10 per cent. per annum net. Also have choice bargains in **Farm, Hop, Hay and Garden Lands.** Correspondence Solicited regarding Western Washington. All inquiries answered promptly. Address

A. C. SICKELS, Tacoma, Washington.

FINANCIAL.

*New Method of Protecting Property
from Lightning.*

The Lightning Dispeller.

Price, \$20 to \$30.—According to size.

The Patent Lightning Dispeller is a conductor specially designed to dissipate the energy of a lightning discharge,—to prevent its doing harm,—placing something in its path upon which its capacity for causing damage may be expended.

No recorded case of lightning stroke has yet been cited against the principle of the Dispeller. So far as known, the dissipation of a conductor has invariably protected under the conditions employed.

Correspondence solicited.

AGENTS WANTED.

The American Lightning Protection Company
United Bank Building, Sioux City, Iowa.

TACOMA INVESTMENTS FOR NON-RESIDENTS. TAYLOR & GUNSTON

Take full charge of property for the

EASTERN INVESTOR.

10% Guaranteed on all Investments.

City, Town, and Suburban Lots,
Garden, Fruit, Hop and Timber Lands.

Houses for sale on the instalment plan, by which the purchaser can obtain an income sufficient to cover all payments, including taxes, insurance, etc.

Information regarding any particular point in the State of Washington gladly furnished upon application. Personal attention given to all loans. Correspondence solicited. Refer, by permission, to the Pacific National Bank, Tacoma, Wash.; Geo. H. Tilley, Esq., Secretary and Treasurer of the Southern Express Co., and Frederick C. Clark, of Clark, Chapin & Bushnell, New York.

Address 504 California Bl'k, Tacoma, Wash.

SCIENCE

The Illustrated Popular Science Weekly. TENTH YEAR.

More than Two hundred of the leading scientific men and women of America have agreed to contribute to the paper during the coming year; and, as others are constantly joining in this move, to make the paper more valuable than ever, it cannot be long before there will be a body of five hundred competent users of this weekly medium of scientific discussion.

Send 50 cents, in postage stamps if most convenient, for 2 months' trial subscription.

N. D. C. HODGES,

874 Broadway, - - - NEW YORK.